January 11, 1988

MID-YEAR MINING STATISTICS

Source: Ontario Ministry of Northern Development and Mines

Exploration and Development Expenditures in Ontario 1986

Diamond Drilling	$ 69,692,311
Geochemical	5,545,070
Geology	10,874,716
Geophysical	4,849,341
Airborne Geo.	1,001,621
Rock Work	17,672,806
Other Expl. & Dev.	70,964,452
Shafts	9,511,392
Drifts,Crosscuts	125,078,069
Raises,Declines	30,896,845
Stripping	11,826,819
Total Expenditure	357,913,442

Note: Figures are based on 75% of census response.

Source: Ontario Ministry of Northern Development and Mines

HS20:EX1985.001

Exploration and Development Expenditures in Ontario 1986 vs 1985

	1986	1985	Percent Change
	$	$	
Diamond Drilling	69,692,311	50,899,448	+ 37
Geochemical	5,545,070	5,639,704	- 2
Geology	10,874,716	10,273,963	+ 6
Geophysical	4,849,341	6,006,127	- 19
Airborne Geo.	1,001,621	734,760	+ 36
Rock Work	17,672,806	12,712,417	+ 39
Other Expl. & Dev.	70,964,452	40,934,249	+ 73
Shafts	9,511,392	31,552,902	- 70
Drifts,Crosscuts	125,078,069	82,855,051	+ 51
Raises,Declines	30,896,845	29,619,624	+ 4
Stripping	11,826,819	13,286,219	- 11
Total Expenditure	357,913,442	284,514,464	+ 26

Source: Ontario Ministry of Northern Development and Mines

HS20:EXPDEV.929

Exploration and Development Expenditures in Ontario 1986 vs 1985

	1986	1985	Percent Change
Outside or General Exploration			
	$	$	
Diamond Drilling	51,178,897	36,301,941	+ 41
Geochemical	5,176,049	5,555,742	- 7
Geology	10,350,919	10,125,339	+ 2
Geophysical	4,713,856	5,953,523	- 21
Airborne Geo.	1,001,621	734,760	+ 36
Rock Work	11,971,755	8,817,455	+ 36
Other Exploration	15,086,847	13,890,434	+ 9
Total Expenditure	99,479,944	81,379,194	+ 22
Mine or On-property Exploration			
Diamond Drilling	9,738,463	7,167,155	+ 36
Geochemical	369,021	83,962	+ 340
Geology	523,797	148,624	+ 252
Geophysical	135,485	52,604	+ 158
Airborne Geo.	0	0	0
Rock Work	5,701,051	3,894,962	+ 46
Other Exploration	7,917,770	570,376	+1,288
Total Expenditure	24,385,587	11,917,683	+ 105
Mine or On-property Development			
Diamond Drilling	8,774,951	7,430,352	+ 18
Shafts	9,511,392	31,552,902	- 70
Drifts,Crosscuts	125,078,069	82,855,051	+ 51
Raises,Declines	30,896,845	29,619,624	+ 4
Stripping	11,826,819	13,286,219	- 11
Other Development	47,959,835	26,473,439	+ 81
Total Expenditure	234,047,911	191,217,587	+ 22

Source: Ontario Ministry of Northern Development and Mines

HS20:EXPDEV1.929

Outside or General Exploration Expenditures in Ontario in 1986 By Mining Division

	Kenora	Patricia	Red Lake	Thunder Bay
	$	$	$	$
Diamond Drilling	4,890,767	5,455,276	2,147,414	10,560,024
Geochemical	498,119	131,711	69,570	2,085,007
Geology	1,472,058	201,510	278,854	2,507,519
Geophysical	873,896	483,197	283,555	705,692
Airborne Geo.	13,117	155,445	44,749	138,365
Rock Work	769,982	0	771,856	2,372,382
Other Exploration	1,643,721	317,941	443,161	2,234,998
Total:	10,161,660	6,745,080	4,039,159	20,603,987

	Porcupine	Sault Ste Marie	Larder Lake	Sudbury
	$	$	$	$
Diamond Drilling	11,968,550	2,869,434	8,875,909	3,085,444
Geochemical	576,385	503,640	877,097	44,736
Geology	931,433	838,966	859,821	636,233
Geophysical	624,984	98,400	1,087,167	346,050
Airborne Geo.	118,070	73,472	240,134	39,210
Rock Work	1,932,180	3,935,379	1,197,348	804,830
Other Exploration	2,274,102	1,113,468	4,538,332	718,820
Total:	18,425,704	9,432,759	17,675,808	5,675,323

	Eastern Ontario	Province Wide
	$	$
Diamond Drilling	1,037,345	288,734
Geochemical	119,228	270,556
Geology	474,132	2,150.393
Geophysical	48,720	162,195
Airborne Geo.	1,200	177,859
Rock Work	185,656	2,142
Other Exploration	374,856	1,427,448
Total:	2,241,137	4,479,327

Source: Ontario Ministry of Northern Development and Mines

Mine or On-Property Exploration
Expenditures in Ontario
in 1986
By Mining Division

	Kenora	Patricia	Red Lake	Thunder Bay
	$	$	$	$
Diamond Drilling	480,300	0	864,073	308,751
Geochemical	5,000	0	0	0
Geology	27,300	0	0	0
Geophysical	6,900	0	7,588	0
Airborne Geo.	0	0	0	0
Rock Work	0	1,097,141	0	1,945,025
Other Exploration	14,700	3,001,730	0	0
Total:	534,200	4,098,871	871,661	2,253,776

	Porcupine	Sault Ste Marie	Larder Lake	Sudbury
	$	$	$	$
Diamond Drilling	2,055,329	0	2,926,238	2,844,532
Geochemical	0	0	361,821	0
Geology	0	0	492,997	0
Geophysical	0	0	120,997	0
Airborne Geo.	0	0	0	0
Rockwork	0	0	1,418,639	576,457
Other Exploration	0	280,000	4,568,664	41,176
Total:	2,055,329	280,000	9,889,356	3,462,165

	Eastern Ontario	Province Wide
	$	$
Diamond Drilling	114,040	145,200
Geochemical	2,200	0
Geology	3,500	0
Geophysical	0	0
Airborne Geo.	0	0
Rockwork	0	663,789
Other Exploration	11,500	0
Total:	131,240	808,989

Source: Ontario Ministry of Northern Development and Mines

HS20:EXPL.001

Mine or On-Property Development Expenditures in Ontario in 1986 By Mining Division

	Kenora	Patricia	Red Lake	Thunder Bay
	$	$	$	$
Diamond Drilling	0	344,400	478,834	488,988
Shafts	0	0	0	480,000
Drifts,Crosscuts	0	901,000	2,522,889	20,551,692
Raises,Declines	0	134,000	598,513	5,024,190
Stripping	0	0	0	0
Other Development	0	0	327,052	1,107,989
Total:	0	1,379,400	3,927,288	27,652,859

	Porcupine	Sault Ste Marie	Larder Lake	Sudbury
	$	$	$	$
Diamond Drilling	644,000	1,260,878	2,658,477	2,899,374
Shafts	0	0	8,148,878	882,514
Drifts,Crosscuts	7,543,421	54,328,723	10,971,505	28,258,839
Raises,Declines	3,281,588	8,221,252	3,696,329	9,940,973
Stripping	1,713,304	0	5,132,195	4,931,559
Other Development	3,127,931	147,870	4,781,449	37,967,544
Total:	16,310,244	63,958,723	35,388,833	84,880,803

	Eastern Ontario
	$
Diamond Drilling	0
Shafts	0
Drifts,Crosscuts	0
Raises,Declines	0
Stripping	49,761
Other Development	500,000
Total:	549,761

Source: Ontario Ministry of Northern Development and Mines

HS20:EXPL.002

VOLUME OF METAL PRODUCTION IN ONTARIO
BY COMMODITY
(PRELIMINARY ESTIMATED)

Mineral Commodity	Unit	1987 Jan-June	1986 Jan-June	1986 Jan-Dec	Percent Change 1987 vs 1986
Cadmium	kg	319,827	331,129	631,363	- 3.4
Calcium	kg	191,125	212,280	278,922	-10.0
Cobalt	kg	1,113,750	1,041,293	1,950,897	+ 7.0
Copper	kg	144,671,104	142,202,539	275,511,007	+ 1.7
Gold	g	24,470,810	23,431,315	47,916,607	+ 4.4
Iron Ore	mt	1,713,445	1,935,221	3,459,128	-11.5
Lead	kg	2,771,485	1,944,408	5,872,668	+42.5
Magnesium	kg	3,819,185	3,650,405	8,747,805	+ 4.6
Nickel	kg	76,034,747	66,048,941	124,307,332	+15.1
Silver	kg	211,444	185,861	380,015	+13.8
Uranium	kg	2,169,955	2,356,982	4,751,987	- 7.9
Zinc	kg	163,695,807	136,760,439	285,902,760	+19.7

Source: Ontario Ministry of Northern Development and Mines

HS24T:VMPT.910

SUMMARY OF MINING OPERATIONS IN ONTARIO,1986
(PRELIMINARY ESTIMATED)

Name of Company	Mine Classification	Av. No. Employees	Ore Mined mt	Ore Milled mt	Development work (1) Metres	Diamond Drilling Metres
Canamax Resources Inc. (Bell Creek Mine) (2)	Gold	9	17,067	10,366	3,171	8,915
Campbell Red Lake Mines Ltd.	Gold	467	356,900	356,900	3,543	13,359
" (Detour Lake Mine)	Gold	170	836,503	783,357	1,993	9,883
Dickenson-Sullivan Joint Venture (Arthur White Mine)	Gold	297	221,975	217,485	3,467	24,287
Dome Mines Ltd.	Gold	769	975,042	961,707	5,664	19,340
Hemlo Gold Mines Inc. (Golden Giant Mine)	Gold	149	732,298	733,413	2,667	10,879
Kerr Addison Mines Ltd.	Gold	339	332,873	332,873	591	2,836
Falconbridge Ltd.(Hoyle Pond)	Gold	60	87,011	83,432	1,141	22,514
" " (Owl Creek)	Gold	12	123,892	158,900	-	-
Lac Minerals Ltd. (Lake Shore Mine)	Gold	54	37,965	37,794	2,621	10,450
Lac Minerals Ltd.(Macassa Div.)	Gold	258	120,306	120,306	3,753	8,921
Lac Minerals Ltd. (Page Williams Mine)	Gold	259	1,204,596	1,229,884	8,957	11,127
McBean Mine	Gold	48	112,286	181,166	-	-

SUMMARY OF MINING OPERATIONS IN ONTARIO,1986
(PRELIMINARY ESTIMATED)

Name of Company	Mine Classification	Av. No. Employees	Ore Mined mt	Ore Milled mt	Development work (1) Metres	Diamond Drilling Metres
Orofini Resources Ltd. (Norstar Mine)	Gold	13	58,456	27,678	355	-
Pamour Inc.	Gold	712				
No. 1 Mine	"	-	549,775	-	3,336	8,251
No. 1 Mine-# 3 Pit	"	-	444,075	-	-	18,966
Schumacher Mine	"	-	212,600		808	5,809
Timmins Surface	"	-	193,409		-	-
Ross Mine	"	-	202,595	-	1,182	-
No. 1 Mine Concentrator	"	-	-	885,782	-	-
Schumacher Mine Concentrator	"	-	-	739,685(3)	-	
Renabie Gold Mines Ltd.	"	180	166,722	166,722	3,292	12,728
Teck-Corona Operating Corpn.(David Bell Mine)	"	177	230,918	230,913	3,473	-

(1) Drifting, Crosscutting, Raising & internal ramps
(2) Preproduction - commercial production commenced January 1, 1987
(3) Excludes custom ore.

SUMMARY OF MINING OPERATIONS IN ONTARIO,1986
(PRELIMINARY ESTIMATED)

Name of Company	Mine Classification	Av. No. Employees	Ore Mined mt	Ore Milled mt	Development work metres	Diamond Drilling Metres
Adams Mine	Iron	383	3,765,779	3,770,000	-	-
Algoma Steel Corpn Algoma Ore Div	"	428	1,696,873	1,703,095	4,221	-
Griffith Mine (4)	"	60	376,473	702,928	-	-
Sherman Mine	"	368	3,490,810	3,562,578	-	-
Total:		1,239	9,329,935	9,738,601	4,221	-
Denison Mines Ltd.	Uranium	1,746	2,547,965	2,549,651	30,648	10,847
Rio Algom Ltd.-Panel Mine	"		984,776	981,846	11,565	4,708
- Quirke Mine	"	2,557	1,657,554	1,656.293	20,135	7,249
- Stanleigh	"		1,075,463	1,068,827	18,597	14,857
Total:		4,303	6,265,758	6,256,617	80,945	37,661
Agnico-Eagle Mines Ltd(Castle)	Silver		8,500	(5)	1,347	13,477
Langis	"	101	562	"	598	10,649
Temiskaming	"		10,558	"	482	6,776

(4) mine closed 31/3/86
(5) mill destroyed by fire in 1986

SUMMARY OF MINING OPERATIONS IN ONTARIO,1986
(PRELIMINARY ESTIMATED)

Name of Company	Mine Classification	Av. No. Employees	Ore Mined mt	Ore Milled mt	Development work Metres	Diamond Drilling Metres
Falconbridge Ltd. Kidd Creek (No.1 & No.2) Underground	Zinc-Copper-Lead	1,956	4,522,929	4,504,558	9,200	18,124
Mattabi Mines Ltd.	•	228	616,524	875,013	2,629	9,478
Noranda Minerals Inc.						
Lyon Lake Division	•	124	261,030	(Incl.Mattabi)	6,810	33,483
(Geco Division)	•	553	1,244,957	1,244,957	7,097	17,005
Falconbridge Ltd.-Craig Mine Nickel		Incl. Onaping	55,762	-	885	8,134
- East Mine	•	185	257,054		1,134	503
- Falconbridge Mine # 1 Open Shaft	•	(Incl.East Mine)	318,855	-	-	-
- Lockerby Mine	•	290	558,962		1,834	7,369
- Onaping Mine	•	208	219,579		862	5,924
- Fraser Mine	•	306	504,931		4,899	26,436
- Strathcona Mine	•	379	854,165		1,373	3,630
- Falconbridge Mill	•	50	-	590,724	-	
- Strathcona Concentrator	•	130		2,209,378		
- North Mine	•	(Incl.Fraser)	4,016		-	-
- Other Departments	•	944	-	-	-	-

SUMMARY OF MINING OPERATIONS IN ONTARIO,1986
(PRELIMINARY ESTIMATED)

Name of Company	Mine Classification	Av. No. Employees	Ore Mined mt	Ore Milled mt	Development work Metres	Diamond Drilling Metres
Inco Ltd.						
- Clarabelle Open Pit	*		133,082	-	-	
- Copper Cliff North	*		393,721			
- Copper Cliff South Mine	*		1,024,728			
- Creighton Mine	*		1,629,563			
- Garson Mine	*	6,150	552,349		39,989	48,135
- Frood Mine	*		1,724,778			
- Levack Mine	*		797,237			
- Little Stobie Mine	*		928,289			
- McCreedy West Mine	*		570,768			
- Stobie Mine	*		1,384,782			
- Shebandowan Mine	*		22,885		-	
- Clarabelle,Frood Stobie & Shebandowan Mills	*		-	9,235,523	-	

SOURCE: ONTARIO MINISTRY OF NORTHERN DEVELOPMENT AND MINES

SUMMARY OF EMPLOYMENT

Smelters, Refineries, Metallurgical Works & Acid Plants

Name of Company	No. Employed
Inco - Smelter Complex	1122
" Copper Refinery	614
Nickel Refinery	564
Port Colborne	323
Falconbridge Ltd. (Smelter)	257
" " (Other Depths)	472
Chromasco, A Div. of Timminco	439
Falconbridge Ltd. (Kidd Creek Zinc Plant	337
" " (Kidd Creek Copper Refinery)	253
Dofasco Inc. (Blast Furnaces)	445
Stelco Inc. (Hilton Works)(Blast Furnaces)	105
Stelco Inc. (Lake Erie Works)(" ")	283
Eldorado Resources Ltd. (Port Hope)	361
" " " (Blind River)	170
The Algoma Steel Corp. Ltd.(Blast Furnaces)	241
Agnico-Eagle Mines Ltd. (Refinery)	5
Total:	5991

Total Employment in 1986 in Metal Mines, Mills, Smelters, Refineries, Metallurgical & Acid Plants.	27110

Source: Annual Census of Manufactures

SUMEMP86

METAL PRICES (CANADIAN FUNDS)

	Unit	1986 Av.Jan-June	1987 Av.Jan-June
		$	$
Cadmium	kg	3.60	4.17
Calcium	kg	12.00	12.01
Cobalt(Shot/Cathode)	kg	34.81	20.61
Copper	kg	2.11	2.03
Gold	g	15.35	18.36
Lead	kg	0.59	0.89
Magnesium	kg	4.68	4.69
Nickel (Metal)	kg	5.63	4.27
Silver	kg	255.31	296.19
Uranium (U/3 0/8)	kg	52.39	49.62
Zinc	kg	1.04	1.21

Source: Energy, Mines & Resources

MPRICES87

Ontario
Prospecting Activity

Mining Division	Jan-June 1987				Jan-June 1986				% Change 1987 vs 1986 Jan-June			
	Mining Claims Recorded	Mining Claims Cancelled	Prospect Licences Issued	Prospect Licences Renewed	Mining Claims Recorded	Mining Claims Cancelled	Prospect Licences Issued	Prospect Licences Renewed	Mining Claims Recorded	Mining Claims Cancelled	Prospect Licences Issued	Prospect Licences Renewed
Southern Ontario	346	286	467	1506	302	231	344	1507	14.6	23.8	35.8	-0.1
Kenora	3956	1496	62	131	1168	1994	34	104	238.7	-25.0	82.4	26.0
Larder Lake	4130	1802	141	291	4507	4130	140	300	-8.4	-56.4	0.7	-3.0
Patricia	3387	1311	35	63	6122	1578	41	88	-44.7	-16.9	-14.6	-28.4
Porcupine	5710	2419	156	384	11795	5063	157	348	-51.6	-52.2	-0.6	10.3
Red Lake	2845	1004	53	67	2301	1052	19	66	23.6	-4.6	178.9	1.5
S.Ste. Marie	3060	1436	34	90	792	10712	46	102	286.4	-86.6	-26.1	-11.8
Sudbury	4629	498	149	284	726	691	118	223	537.6	-27.9	26.3	27.4
Thunder Bay	9589	2730	297	502	8224	6659	223	464	16.6	-59.0	33.2	8.2
Total	37652	12982	1394	3318	35937	32110	1122	3202	4.8	-59.5	24.2	3.6

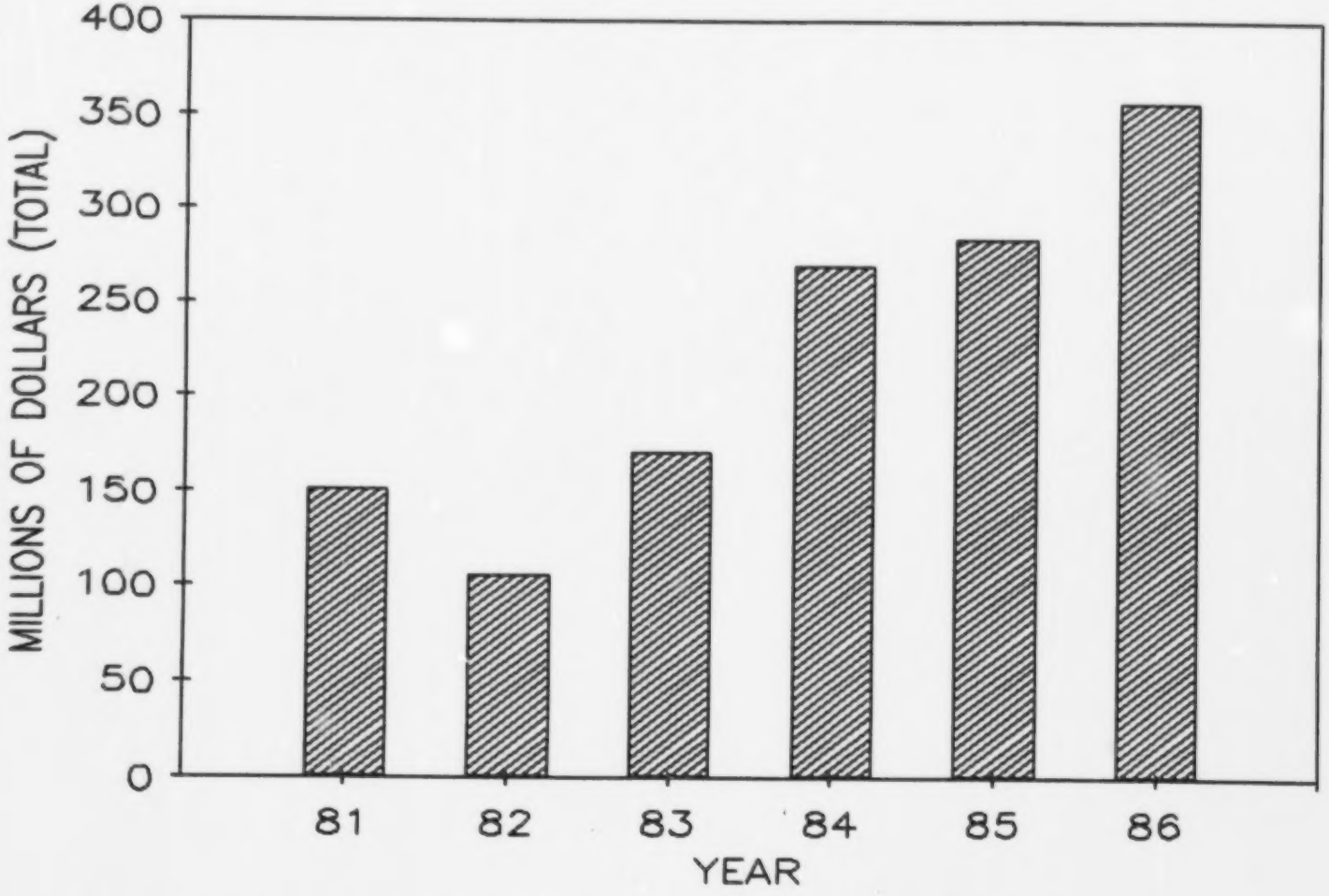
Source: Ontario Ministry of Northern Development and Mines

Assessment Work (Days)

	1987 Jan-June	1986 Jan-June	1986 Jan-Dec	% Change '87 vs '86 Jan-June
Southern Ontario	7,186	19,559	32,599	-63.2
Kenora	150,323	57,011	142,645	+163.7
Larder Lake	338,759	188,751	631,040	+ 79.5
Patricia	409,847	152,603	429,480	+168.6
Porcupine	592,265	280,813	717,522	+110.9
Red Lake	107,537	70,142	189,633	+ 53.3
Sault Ste Marie	195,996	50,082	131,163	+291.4
Sudbury	23,478	25,294	49,820	- 7.2
Thunder Bay	581,089	164,544	462,772	+253.2
	2,406,480	1,008,799	2,786,674	+138.5

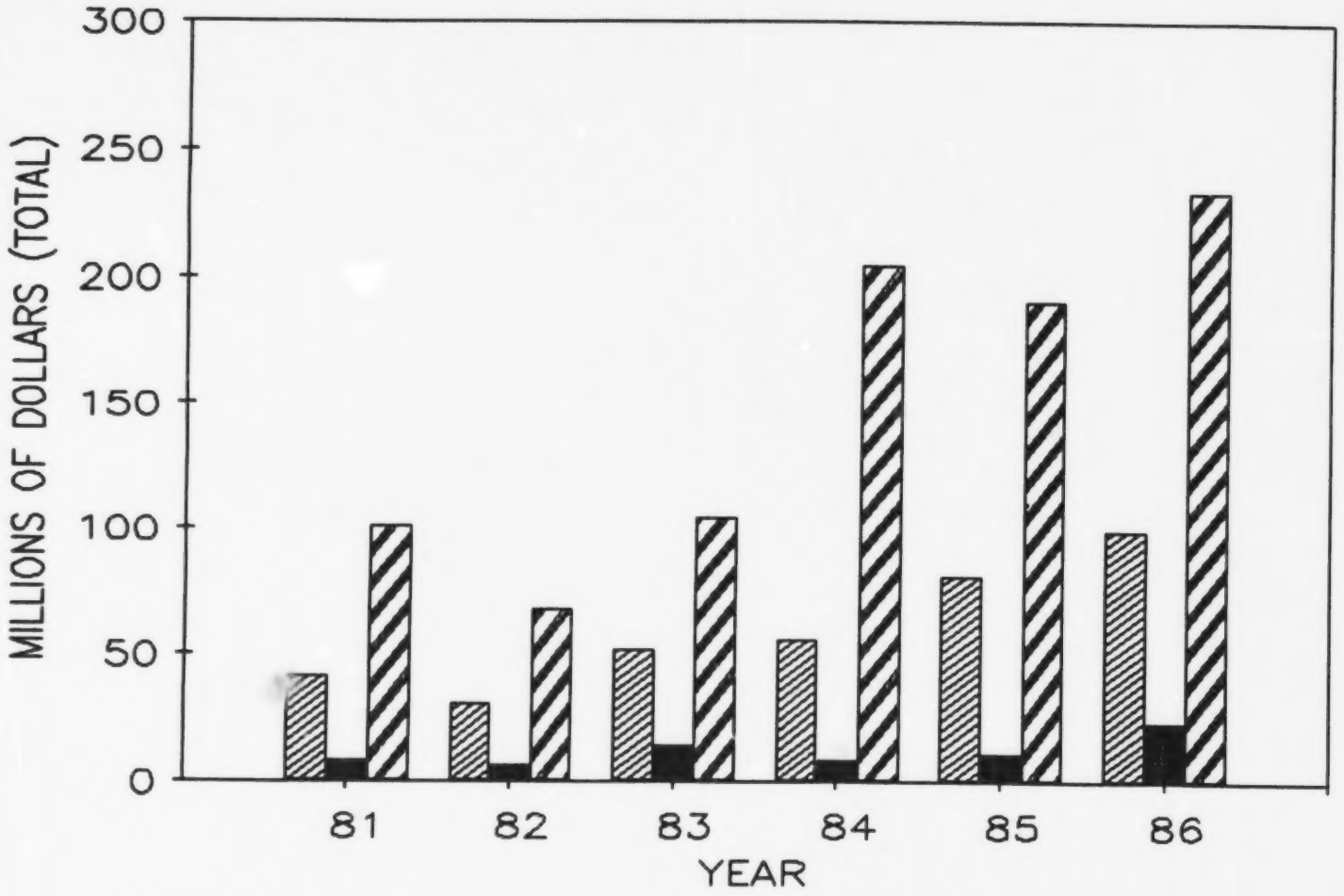
Source: Ontario Ministry of Northern Development and Mines

EXPLORATION AND DEVELOPMENT EXPENDITURES IN ONTARIO 1981 — 1986



Source: Ontario Ministry of Northern Development and Mines

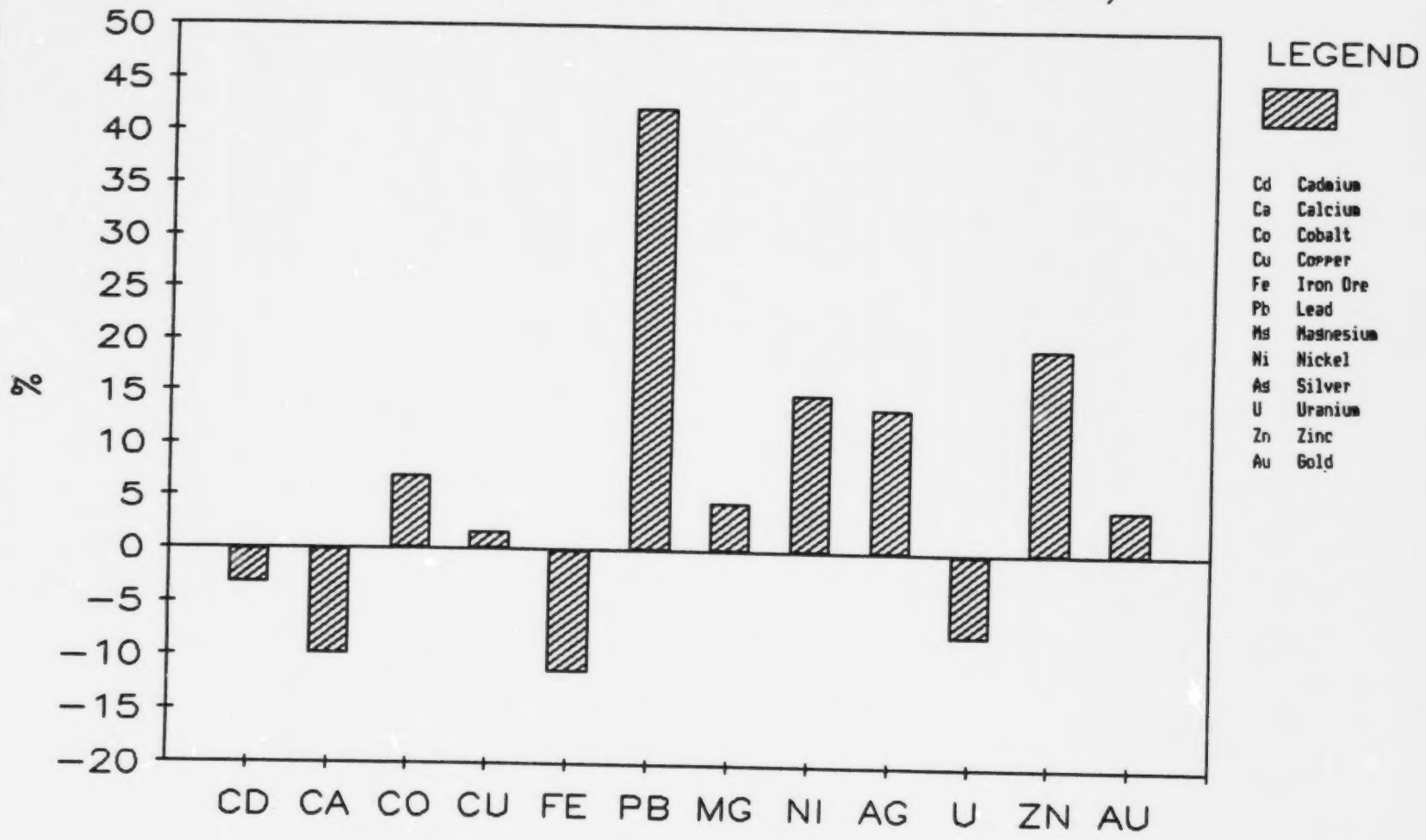
EXPLORATION AND DEVELOPMENT EXPENDITURES IN ONTARIO 1981 – 1986



Source: Ontario Ministry of Northern Development and Mines

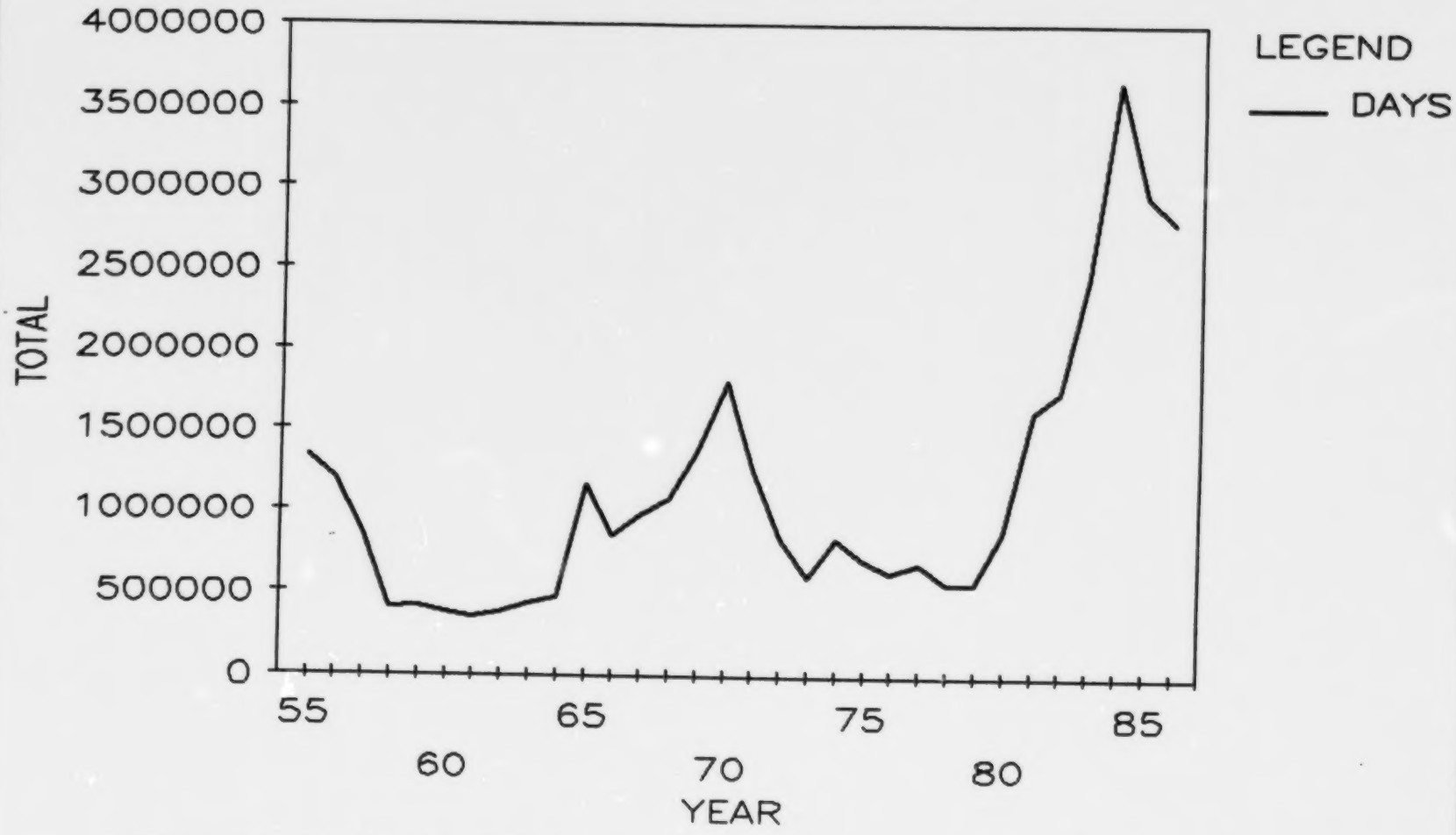
VOLUME OF METALLIC MINERAL PRODUCTION IN ONTARIO

(% change, 1987 vs 1986 Jan–June)



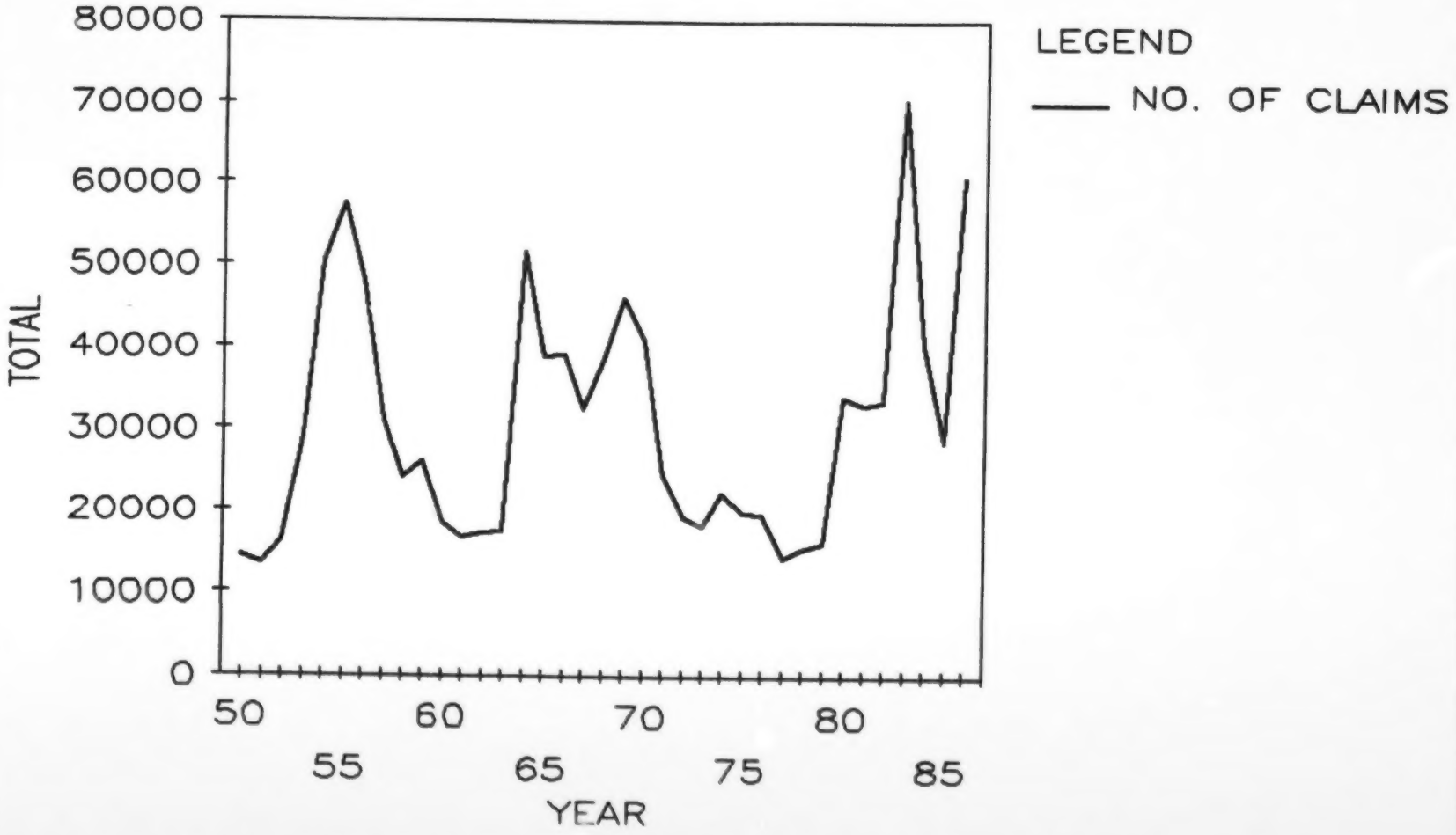
Source: Ontario Ministry of Northern Development and Mines

TOTAL ASSESSMENT WORK IN ONTARIO
1955 — 1986



Source: Ontario Ministry of Northern Development and Mines

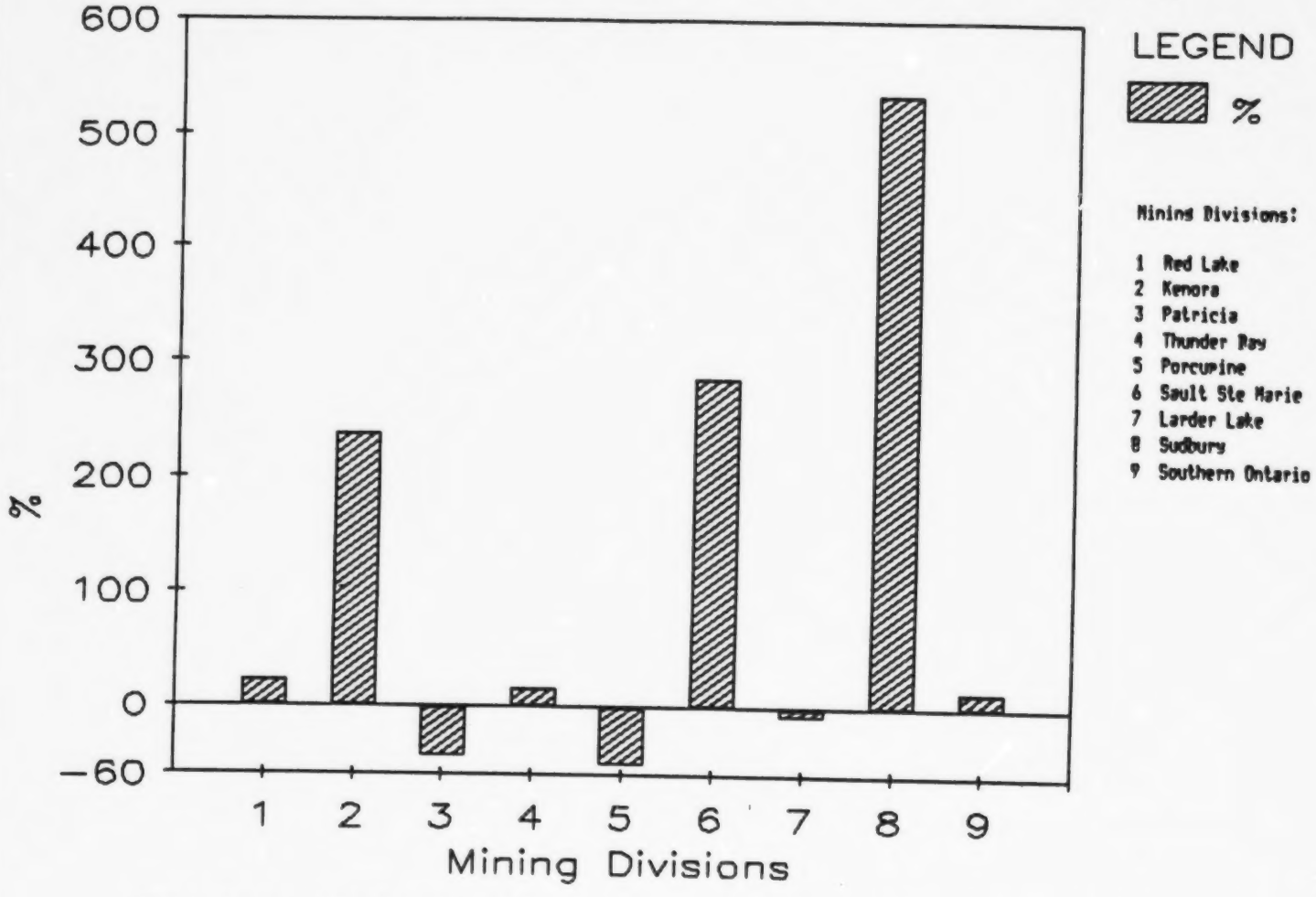
MINING CLAIMS RECORDED IN ONTARIO 1950 – 1986



Source: Ontario Ministry of Northern Development and Mines

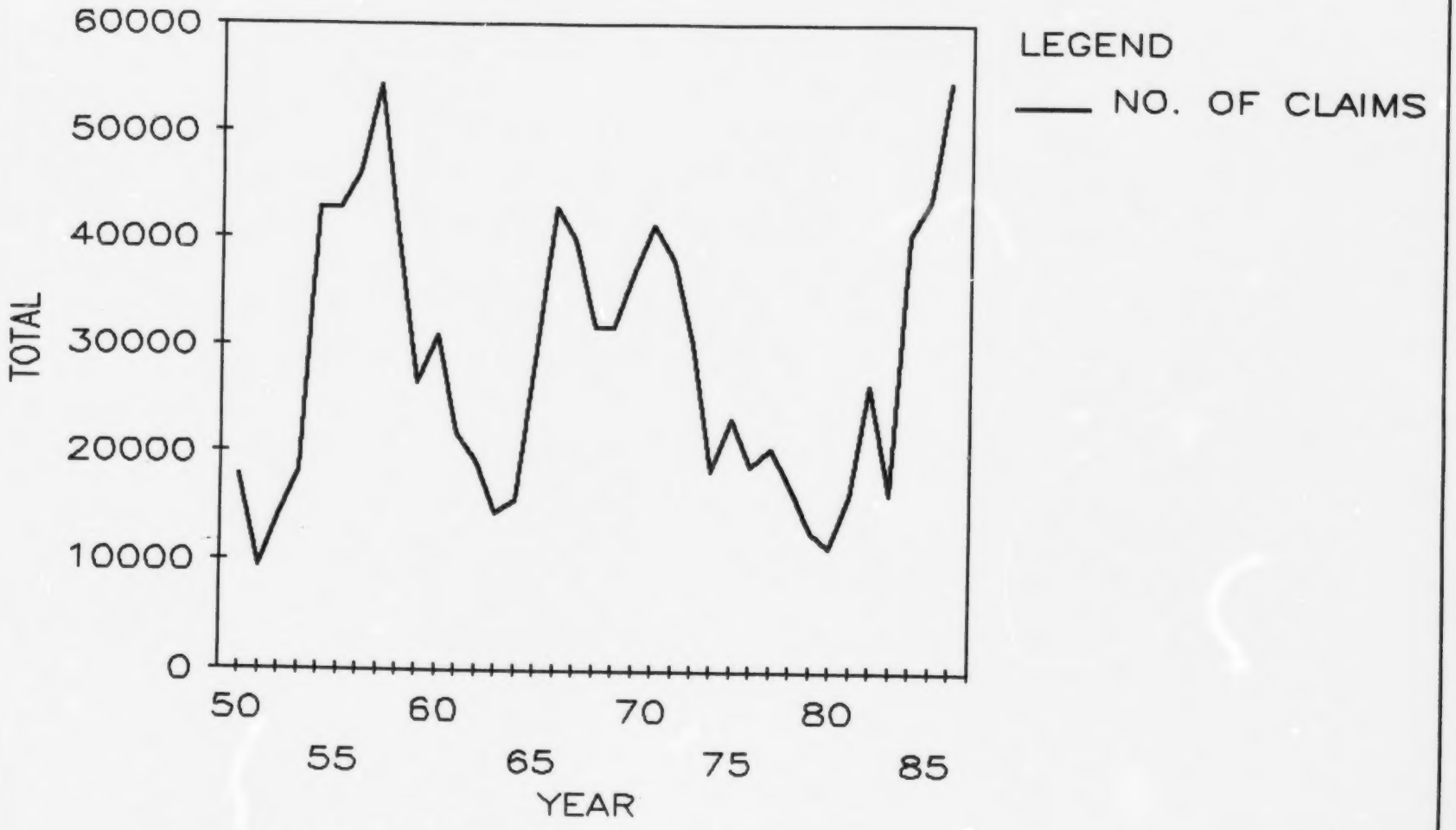
MINING CLAIMS RECORDED BY ONTARIO MINING DIVISIONS

(% change, 1987 vs 1986 Jan–June)



Source: Ontario Ministry of Northern Development and Mines

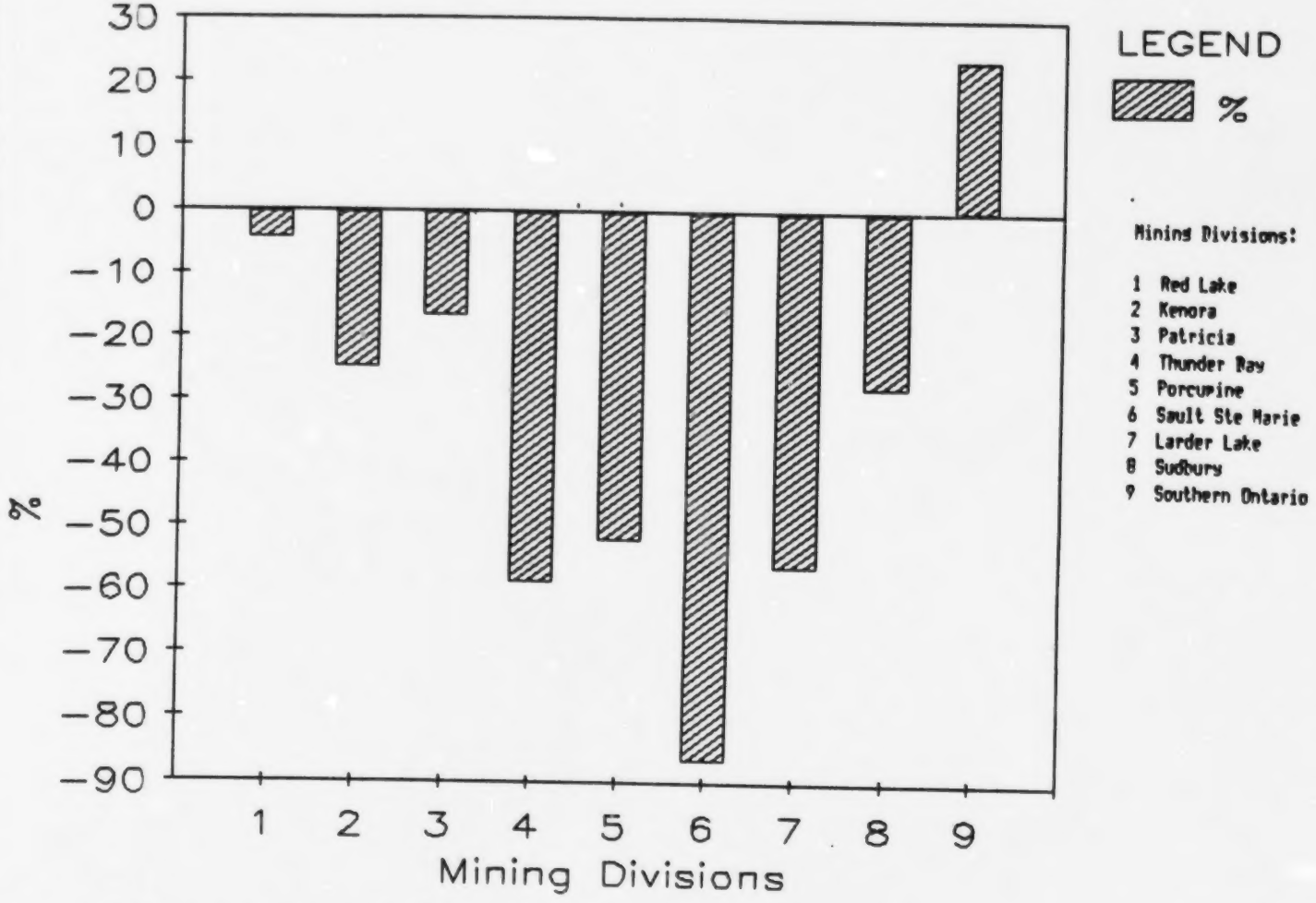
MINING CLAIMS CANCELLED IN ONTARIO
1950 — 1986



Source: Ontario Ministry of Northern Development and Mines

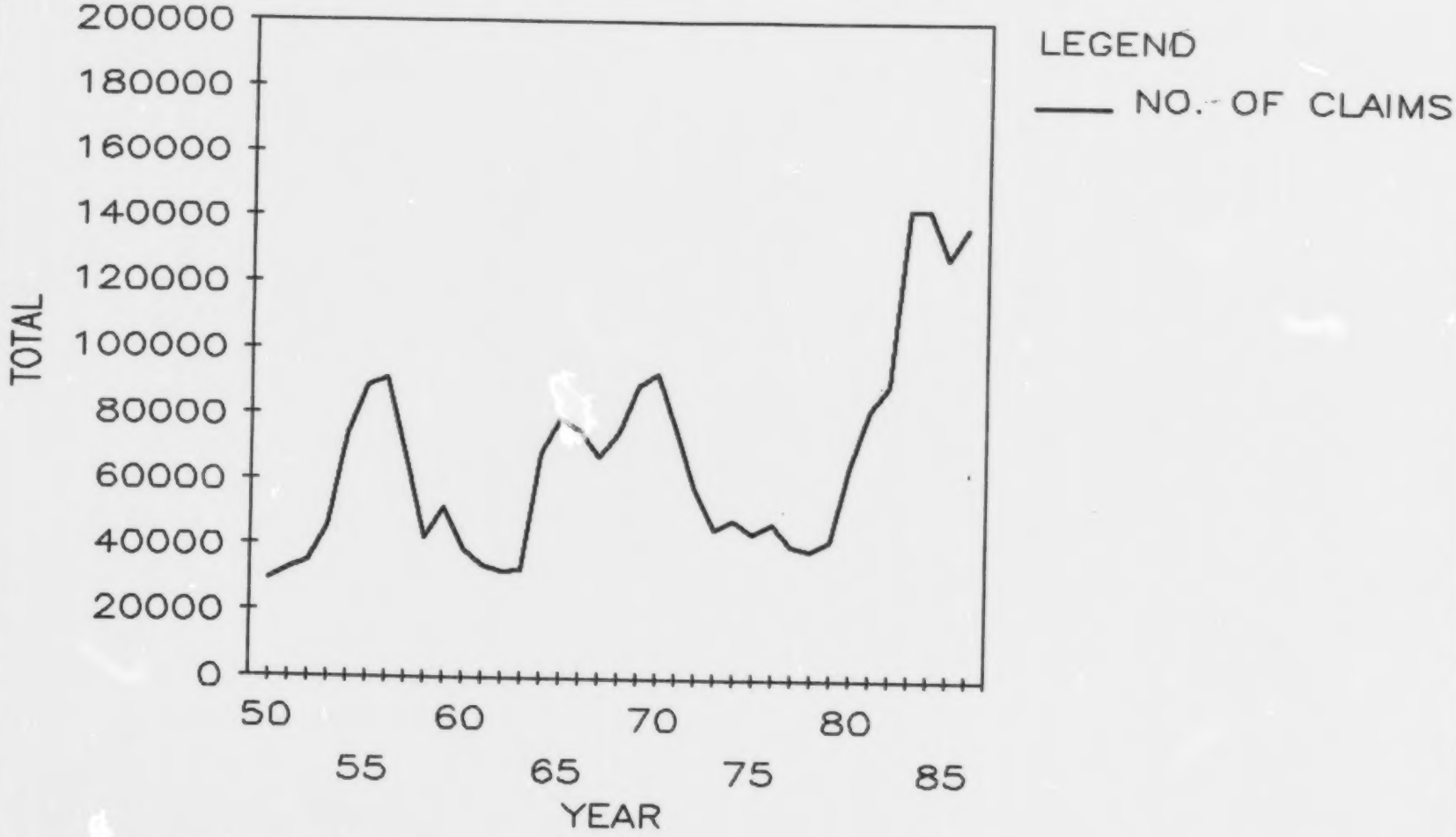
MINING CLAIMS CANCELLED BY ONTARIO MINING DIVISIONS

(% change, 1987 vs 1986 Jan–June)



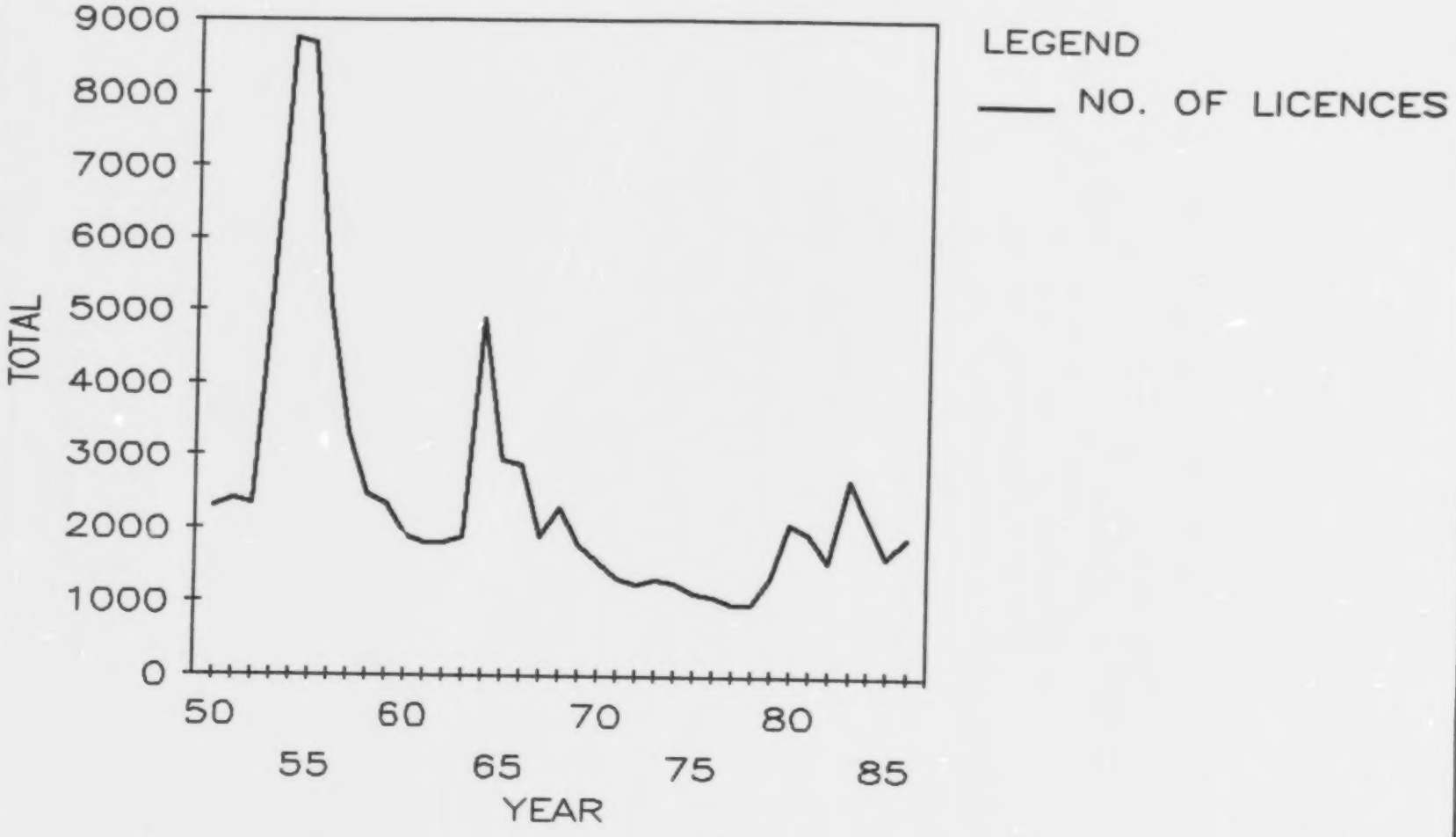
Source: Ontario Ministry of Northern Development and Mines

MINING CLAIMS IN GOOD STANDING IN ONTARIO 1950 – 1986



Source: Ontario Ministry of Northern Development and Mines

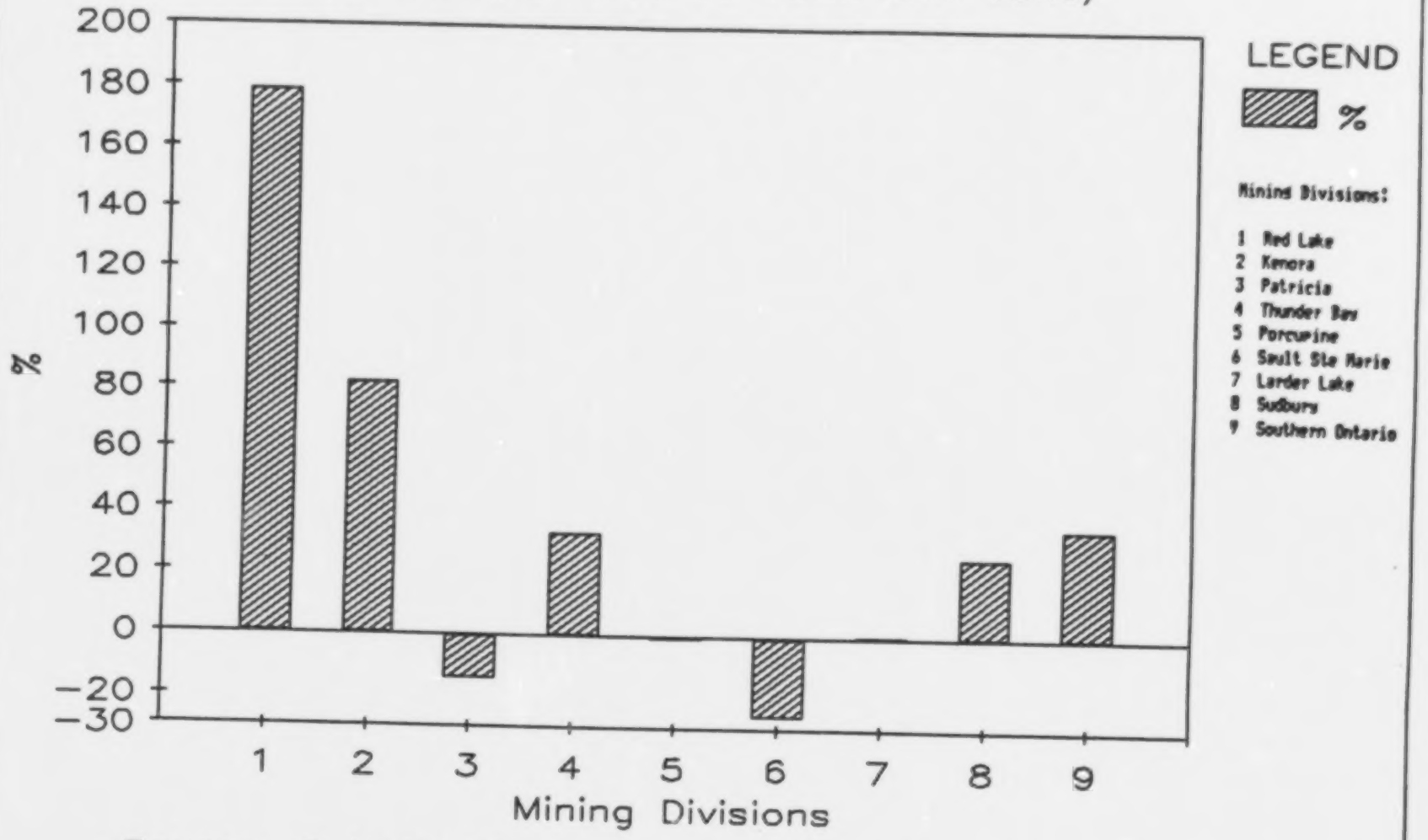
PROSPECTORS' LICENCES ISSUED IN ONTARIO 1950 – 1986



Source: Ontario Ministry of Northern Development and Mines

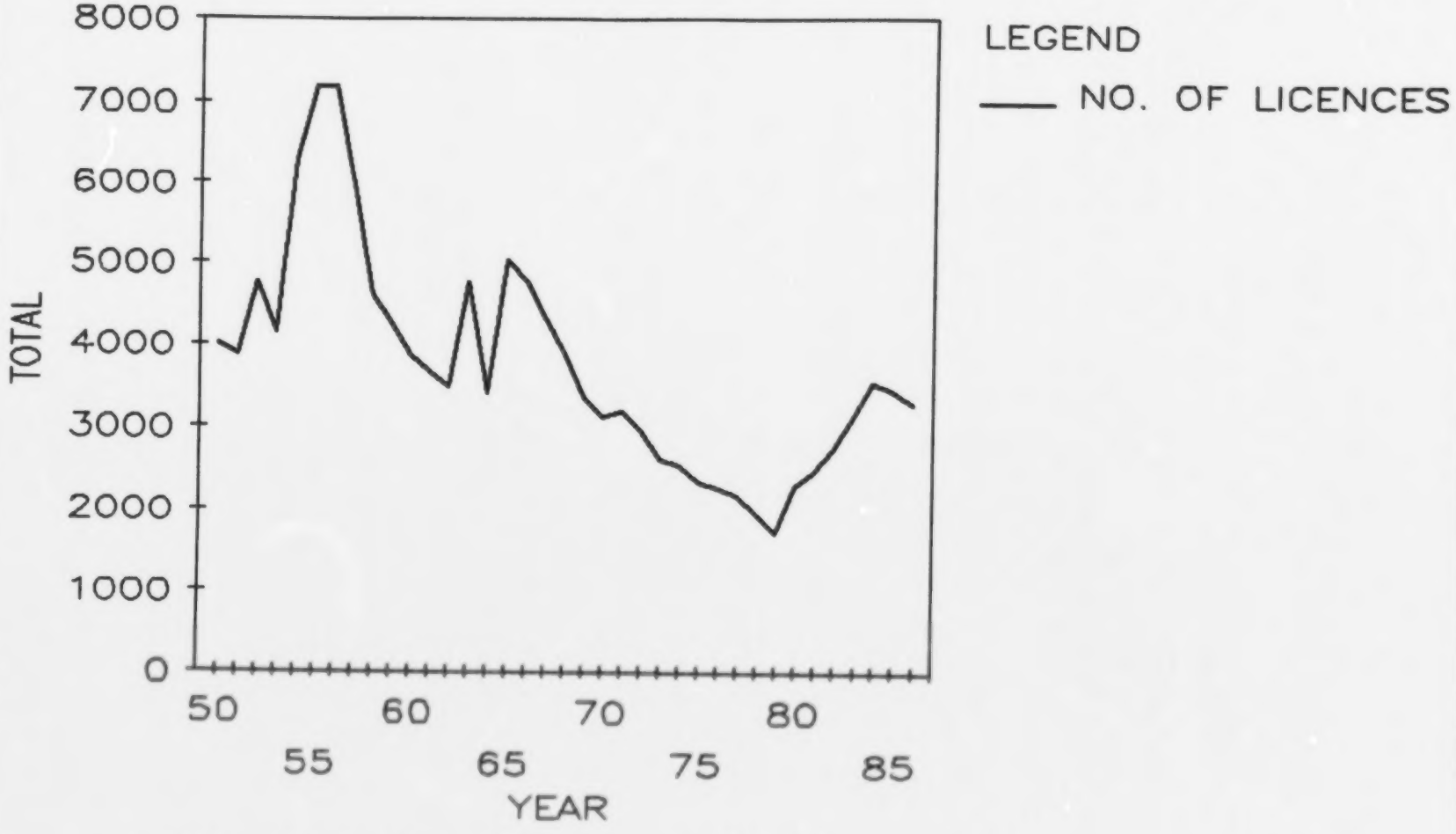
PROSPECTORS' LICENCES ISSUED BY ONTARIO MINING DIVISIONS

(% change, 1987 vs 1986 Jan–June)



Source: Ontario Ministry of Northern Development and Mines

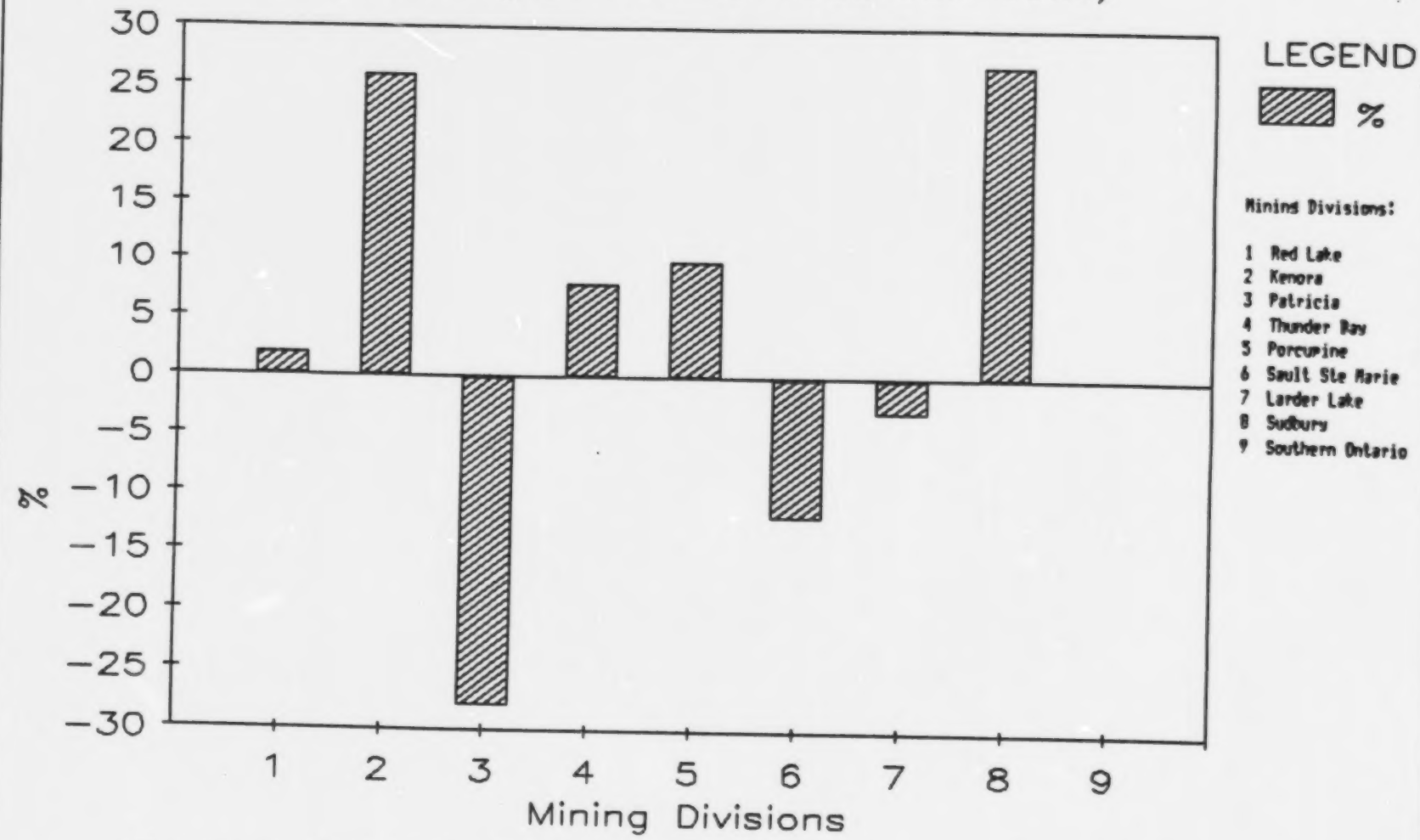
PROSPECTORS' LICENCES RENEWED IN ONTARIO 1950 – 1986



Source: Ontario Ministry of Northern Development and Mines

PROSPECTORS' LICENCES RENEWED BY ONTARIO MINING DIVISIONS

(% change, 1987 vs 1986 Jan–June)



Source: Ontario Ministry of Northern Development and Mines